## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

# Listing of Claims:

1(Original). A method of treating acne and/or hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula I, or a tautomer thereof, and a physiologically compatible carrier, wherein formula I is:

$$\mathbb{R}^{5}$$

$$\mathbb{R}^{4}$$

$$\mathbb{R}^{3}$$

$$\mathbb{R}^{4}$$

wherein:

R<sup>1</sup> and R<sup>2</sup> are selected from the group consisting of H, alkyl, substituted alkyl, OH, O(alkyl), O(substituted alkyl), O(Acetyl), aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, alkylaryl, substituted alkylaryl, alkylheteroaryl, substituted alkylheteroaryl, 1-propynyl, substituted 1-propynyl, 3-propynyl, and substituted 3-propynyl;

or R<sup>1</sup> and R<sup>2</sup> are joined to form a ring selected from the group consisting of -CH<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CCH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>m</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>p</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>N(H)CH<sub>2</sub>CH<sub>2</sub>-, and -CH<sub>2</sub>CH<sub>2</sub>N(alkyl)CH<sub>2</sub>CH<sub>2</sub>-; m is an integer from 1 to 4; n is an integer from 1 to 5;

or R<sup>1</sup> and R<sup>2</sup> form a double bond to C(CH<sub>3</sub>)<sub>2</sub>, C(cycloalkyl), O, or C(cycloether);

p is an integer from 1 to 4;

 $R^3$  is selected from the group consisting of H, OH, NH<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>3</sub> to C<sub>6</sub> alkenyl, substituted C<sub>3</sub> to C<sub>6</sub> alkenyl, alkynyl, substituted alkynyl, and COR<sup>A</sup>;

 $R^A$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^4$  is selected from the group consisting of H, halogen, CN, NH<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, substituted C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl, and substituted C<sub>1</sub> to C<sub>6</sub> aminoalkyl;

R<sup>5</sup> is selected from the group consisting of a), b) and c):

a) a substituted benzene ring having the structure:

X is selected from the group consisting of halogen, OH, CN, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> thioalkyl, substituted C<sub>1</sub> to C<sub>3</sub> thioalkyl, S(O)alkyl, S(O)alkyl, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, substituted C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 or 6 membered heterocyclic ring having 1 to 3 heteroatoms, CONH<sub>2</sub>, CSNH<sub>2</sub>, CNHNHOH, CNH<sub>2</sub>NOH, CNHNOH, COR<sup>B</sup>, CSR<sup>B</sup>, OCOR<sup>B</sup>, and NR<sup>C</sup>COR<sup>B</sup>;

 $R^B$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

R<sup>C</sup> is H, C<sub>1</sub> to C<sub>3</sub> alkyl, or substituted C<sub>1</sub> to C<sub>3</sub> alkyl;

Y and Z are independently selected from the group consisting of H, halogen, CN, NO<sub>2</sub>,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_4$  alkyl, substituted  $C_1$  to  $C_4$  alkyl,  $C_1$  to  $C_3$  thioalkyl.

b) a five or six membered heterocyclic ring comprising 1, 2, or 3 heteroatoms selected from the group consisting of O, S, SO, SO<sub>2</sub> and NR<sup>6</sup> and having one or two

independent substituents from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>4</sub> alkyl, substituted C<sub>1</sub> to C<sub>4</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, COR<sup>D</sup>, CSR<sup>D</sup>, and NR<sup>E</sup>COR<sup>D</sup>;

 $R^D$  is H, NH<sub>2</sub>,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^{E}$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;

R<sup>6</sup> is H, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, or C<sub>1</sub> to C<sub>4</sub>CO<sub>2</sub>alkyl; or

c) an indol-4-yl, indol-7-yl or benzo-2-thiophene moiety, wherein said moiety is optionally substituted by from 1 to 3 substituents selected from the group consisting of halogen, alkyl, substituted alkyl, CN, NO<sub>2</sub>, alkoxy, substituted alkoxy, and CF<sub>3</sub>;

Q<sup>1</sup> is S, NR<sup>7</sup>, or CR<sup>8</sup>R<sup>9</sup>;

R<sup>7</sup> is selected from the group consisting of CN, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>3</sub> to C<sub>8</sub> cycloalkyl, substituted C<sub>3</sub> to C<sub>8</sub> cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, SO<sub>2</sub>CF<sub>3</sub>, OR<sup>11</sup> and NR<sup>11</sup>R<sup>12</sup>;

 $R^8$  and  $R^9$  are independent substituents selected from the group consisting of H, alkyl, substituted alkyl, acyl, substituted acyl, aroyl, substituted aroyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring,  $NO_2$ , CN, and  $CO_2R^{10}$ ;

R<sup>10</sup> is C<sub>1</sub> to C<sub>3</sub> alkyl or substituted C<sub>1</sub> to C<sub>3</sub> alkyl; or CR<sup>8</sup>R<sup>9</sup> comprise a six membered ring having the structure:

R<sup>11</sup> and R<sup>12</sup> are independently selected from the group consisting of H, alkyl, substituted alkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, sulfonyl, and substituted sulfonyl; or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

2(Original). The method according to Claim 1, wherein:

R<sup>1</sup> and R<sup>2</sup> are joined to form a -CH<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>- ring;

n is 3:

R3 and R4 are H;

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R<sup>5</sup> is the substituted benzene ring having the structure:

X is selected from the group consisting of halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, COR<sup>B</sup>, CSR<sup>B</sup>, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> alkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C<sub>1</sub> to C<sub>3</sub> thioalkyl;

 $R^B$  is  $C_1$  to  $C_3$  aminoalkyl or substituted  $C_1$  to  $C_3$  aminoalkyl, wherein said aminoalkyl is NH(alkyl) or N(alkyl)<sub>2</sub>;

Y is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_4$  alkyl, and  $C_1$  to  $C_3$  thioalkyl.

3(Original). The method according to Claim 1, wherein:

R<sup>1</sup> and R<sup>2</sup> are joined to form the -CH<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>- ring;

n is 3;

R3 and R4 are H;

R<sup>5</sup> is the five membered ring having the structure:

U is O, S, or NR<sup>6</sup>;

X' is selected from the group consisting of halogen, CN, NO<sub>2</sub>, CONH<sub>2</sub>, CSNH<sub>2</sub>, COR<sup>B</sup>, CSR<sup>B</sup>, C<sub>1</sub> to C<sub>3</sub> alkyl, and C<sub>1</sub> to C<sub>3</sub> alkoxy;

R<sup>B</sup> is C<sub>1</sub> to C<sub>3</sub> aminoalkyl or substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, wherein said aminoalkyl is NH(alkyl) or N(alkyl)<sub>2</sub>;

Y' is selected from the group consisting of H, halogen, and  $C_1$  to  $C_4$  alkyl, wherein said halogen is F.

4(Original). The method according to Claim 1, wherein:

R<sup>1</sup> and R<sup>2</sup> are joined to form a -CH<sub>2</sub>(CH<sub>2</sub>)<sub>0</sub>CH<sub>2</sub>- ring;

n is 3;

R3 and R4 are H;

R<sup>5</sup> is the six membered ring having the structure:



X<sup>1</sup> is N or CX<sup>2</sup>;

X<sup>2</sup> is halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, COR<sup>B</sup>, CSR<sup>B</sup>, or NO<sub>2</sub>;

 $R^B$  is  $C_1$  to  $C_3$  aminoalkyl or substituted  $C_1$  to  $C_3$  aminoalkyl, wherein said aminoalkyl is NH(alkyl) or N(alkyl)<sub>2</sub>.

5(Original). The method according to claim 1, wherein:

R1 and R2 are alkyl or substituted alkyl;

 $\mathbb{R}^3$  is H.

6(Original). The method according to claim 1, wherein:

R<sup>1</sup> and R<sup>2</sup> are joined to form a ring selected from the group consisting of

-CH<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>m</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>p</sub>O-,

-CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>N(H)CH<sub>2</sub>CH<sub>2</sub>-, and -CH<sub>2</sub>CH<sub>2</sub>N(alkyl)CH<sub>2</sub>CH<sub>2</sub>-;

R<sup>3</sup> is H.

7(Original). The method according to claim 1, wherein: R<sup>3</sup> is H;
Q<sup>1</sup> is S or NR<sup>7</sup>.

8(Original). The method according to claim 1, wherein the compound is delivered orally.

9(Currently Amended). The method according to elaims claim 1, wherein said compound of formula I is selected from the group consisting of 5'-(3-Chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-thione, 3-(1',2'-Dihydro-2'thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)benzonitrile, 4-1',2'-Dihydro-2'thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-2-thiophenecarbonitrile, 3-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-5-fluorobenzonitrile, 4-Methyl-5-(1,2dihydro-2-thioxospiro[cyclohexane-1,3-[3H]-indol]-5-yl)-2-thiophenethioamide, 5-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5'-yl)-1H-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexape-1,3-[3H]indol]-5-yl)-1-(tert-butoxycarbonyl)pyxrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-1-H-pyrtole-2-carbonitrile, 5-(2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1-mcthylpyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-3thiophenecarbonitrile, 5-(1,2-Dihydro-thioxospiro[cyclopentane-1,3-{3H]indol]-5-yl)-2thiophenecarbonitrile, 5-(3-Fluoro-4-methoxyphenyl)spiro[cyclohexane-1,3-[3H]indo]]-2(1H)-thione, 5-(2-Amino-5-pyrimidinyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)thione, 3-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-5fluorobenzonitrile, 5-(3-chlorophenyl)-3,3-dimethyl-1,3-dihydro-2H-indole-2-thione, 3-Benzyl-5-(3-chlorophenyl)-3-methyl-1,3-dihydro-2H-indole-2-thione, 4-(3,3-dimethyl-2thioxo-2,3-dihydro-1H-indol-5-yl)-2-furonitrile, 5-(3-methoxyphenyl)-3,3-dimethyl-1,3dihydro-2H-indolc-2-thione, 3-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-fluorobenzonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5yl)-3-pyridinecarbonitrile, 5-(3,4-Difluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(5-Chloro-2-thienyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-3-furancarbonitrile, 5-(3-Chloro-4-fluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-Chloro-5fluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3,5-Difluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(1,2-Dihydro-2thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-propyl-2-thiophenecarbonitrile, 5-(3-Fluoro-4-nitrophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 4-(1,2-Dihydro-2thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-furancarbonitrile, 5"-(3-Chlorophenyl)spiro[cyclobutane-1,3"-[3H]indol]-2"(1"H)-thione, 5"-(2-Chlorophenyl)spiro[cyclohexane-1,3"-[3H]indol]-2"(1"H)-thione, 5"-(4-Chlorophenyl)spito[cyclohexane-1,3"-[3H]indol]-2"(1"H)-thione, 5-(1",2"-Dihydro-2"-thioxospiro[cyclohexane-1,3"-[3H]indol]-5"-yl)-4-methyl-2thiophenecarbonitrile, 5-(1",2"-Dihydro-2"-thioxospiro[cyclohexane-1,3"-[3H]indol]-5"yl)-2-thiophenecarbonitrile, 5"-(3-Fluorophenyl)spiro[cyclohexane-1,3"-[3H]indol]-2"(1"H)-thione, 5-(3-Hydroxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-chlorophenyl)-3,3-diethyl-1,3-dihydro-2H-indole-2-thione, 5-(4-Fluoro-3-(trifluoromethyl)phenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thionc, 4-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-fluorobenzonitrile. 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-n-butyl-2thiophenecarbonitrile, 5-(3-Fluoro-5-methoxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-Chlorophenyl)-N-hydroxyspiro[cyclohexane-1,3'-[3H]indol]-2-amine, N-(Acetyloxy)-5'-(3-chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2"amine, 5'-(3-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(2-

Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(4-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3,4-difluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-methoxyphenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-nitrophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-cyanophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 3-(1',2'-Dihydro-2'-(hydroxyimino)spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-5fluorobenzonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-4methyl-2-thiophenecarbonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarbonitrile, 4-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarbonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-1H-pyrrole-1-methyl-2-carbonitrile, 5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-1H-pyrrole-2-carbonitrile, 4-(Spiro[cyclohexanc-1,3'-[3H]indol]-2'(acetoxyimino)-5'-yl)-2-thiophenecarbonitrile. 3-Fluoro-N'-hydroxy-5-(2'-(hydroxyamino)spiro[cyclohexane-1,3'-[3H]indol]-5'yl)benzenecarboximidamide, N'-Hydroxy-5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-4-methyl-2-thiophenecarboximidamide, N'-Hydroxy-4-(spiro[cyclohexane-1,3'-[3H]indol]-2'-hydroxyimino)-5'-yl-2thiophenecarboximidamide, N'-Hydroxy-5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarboxidamide, 5'-(3-Chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidencoyanamide, 5'-(3-Cyano-5fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-1Hpyrrol-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2-ylidenecyanamide, 5'-(5-Cyanothiophen-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-3methyl-thiophen-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-thiophen-3-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 3-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-5-fluoro-benzonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1H-pyrrole-2-carbonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1-methyl-1H-pyrrole-22155405818

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carbonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-thiophene-2-carbonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-4-methyl-thiophene-2-carbonitrile, and 4-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-thiophene-2-carbonitrile, or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

10(Currently Amended). The method according to elaims claim 1, wherein said compound is 5'-(5-Cyano-1-methyl-1H-pyrrol-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

11(Original). A method of treating acne and/or hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula II, or a tautomer thereof, and a physiologically compatible carrier, wherein formula II is:

wherein:

R<sup>11</sup> is selected from the group consisting of H, acyl, substituted acyl, aroyl, substituted aroyl, sulfonyl, and substituted sulfonyl;

R<sup>5</sup> is (i), (ii), or (iii):

(i) a substituted benzene ring having the structure:

wherein:

X is selected from the group consisting of halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub>, CNHNHOH, CNH<sub>2</sub>NOH, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> alkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C<sub>1</sub> to C<sub>3</sub> thioalkyl;

Y is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>4</sub> alkyl, and C<sub>1</sub> to C<sub>3</sub> thioalkyl;

(ii) a five membered ring having the structure:

wherein:

U is O, S, or NR<sup>6</sup>;

R<sup>6</sup> is H, C<sub>1</sub> to C<sub>3</sub> alkyl, or C<sub>1</sub> to C<sub>4</sub> CO<sub>2</sub>alkyl;

X' is selected from the group consisting of halogen, CN, NO<sub>2</sub>, CONH<sub>2</sub>, CNHNHOH, CNH<sub>2</sub>NOH, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, and C<sub>1</sub> to C<sub>3</sub> alkoxy;

Y' is selected from the group consisting of H, F, and C<sub>1</sub> to C<sub>4</sub> alkyl; or

(iii) a six membered ring having the structure:



wherein:

X1 is N or CX2;

X<sup>2</sup> is halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub> or NO<sub>2</sub>;

or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

12(Original). The method according to claim 11, wherein R<sup>5</sup> is said five membered ring and U is O or S.

13(Original). A method of treating acne and/or hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula III, or a tautomer thereof, and a physiologically compatible carrier, wherein formula III is:

wherein:

R<sup>5</sup> is (i), (ii), or (iii):

(i) a substituted benzene ring having the structure:

wherein:

X is selected from the group consisting of halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub>, CNHNOH, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> alkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C<sub>1</sub> to C<sub>3</sub> thioalkyl;

Y is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to  $C_3$  alkoxy,  $C_1$  to  $C_4$  alkyl, and  $C_1$  to  $C_3$  thioalkyl;

(ii) a five membered ring having the structure:

wherein:

U is O, S, or NR6;

R<sup>6</sup> is H, C<sub>1</sub> to C<sub>3</sub> alkyl, or C<sub>1</sub> to C<sub>4</sub> CO<sub>2</sub> alkyl;

X' is selected from the group consisting of halogen, CN, NO<sub>2</sub>, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, and C<sub>1</sub> to C<sub>3</sub> alkoxy;

Y' is selected from the group consisting of H, F and C<sub>1</sub> to C<sub>4</sub> alkyl; or

(iii) a six membered ring having the structure:

wherein:

 $X^1$  is N or  $CX^2$ ;

X<sup>2</sup> is halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub> or NO<sub>2</sub>; or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

14(Original). The method according to claim 13, wherein R<sup>5</sup> is the five membered ring (ii) and U is O or S.

15(Original). A method of treating acne and/or hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula IV, or a tautomer thereof, and a physiologically compatible carrier, wherein formula IV is:

wherein:

R<sup>8</sup> is selected from the group consisting of H, CO<sub>2</sub>R<sup>10</sup>, acyl, substituted acyl, aroyl, substituted aroyl, alkyl, substituted alkyl, and CN;

 $R^{10}$  is  $C_1$  to  $C_3$  alkyl;

R<sup>5</sup> is (i), (ii), or (iii):

(i) a substituted benzene ring having the structure:

wherein:

X is selected from the group consisting of halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub>, CNHNOH, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> alkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C<sub>1</sub> to C<sub>3</sub> thioalkyl;

Y is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>4</sub> alkyl, and C<sub>1</sub> to C<sub>2</sub> thioalkyl;

(ii) a five membered ring having the structure:

wherein:

U is O, S, or  $NR^6$ ;  $R^6$  is H,  $C_1$  to  $C_3$  alkyl, or  $C_1$  to  $C_4$   $CO_2$ alkyl;

X' is selected from the group consisting of halogen, CN, NO<sub>2</sub>, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, and C<sub>1</sub> to C<sub>3</sub> alkoxy;

Y' is selected from the group consisting of H, F and C<sub>1</sub> to C<sub>4</sub> alkyl;

(iii) a six membered ring having the structure:

wherein:

 $X^1$  is N or  $CX^2$ :

X<sup>2</sup> is halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub> or NO<sub>2</sub>; or a pharmaccutically acceptable salt, tautomer, metabolite, or prodrug thereof.

16(Original). The method according to claim 15, wherein  $\mathbb{R}^5$  is the five-membered ring (ii) and U is O or S.

17(Original). A method of treating acne and hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula V, or a tautomer thereof, and a physiologically compatible carrier, wherein formula V is:

R<sup>5</sup> is (i), (ii), or (iii):

(i) a substituted benzene ring having the structure:

wherein:

X is selected from the group consisting of halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub>, CNHNOH, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> alkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C<sub>1</sub> to C<sub>3</sub> thioalkyl;

Y is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>4</sub> alkyl, and C<sub>1</sub> to C<sub>3</sub> thioalkyl;

(ii) a five membered ring having the structure:

wherein:

U is O, S, or NR6;

 $R^6$  is H,  $C_1$  to  $C_3$  alkyl, or  $C_1$  to  $C_4$  CO<sub>2</sub>alkyl;

X' is selected from the group consisting of halogen, CN, NO<sub>2</sub>, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, and C<sub>1</sub> to C<sub>3</sub> alkoxy;

Y' is selected from the group consisting of H, F, and C<sub>1</sub> to C<sub>4</sub> alkyl;

(iii) a six membered ring having the structure:

wherein:

X1 is N or CX2:

X<sup>2</sup> is halogen, CN, CONH<sub>2</sub>, CSNH<sub>2</sub>, CONHalkyl, CSNHalkyl, CON(alkyl)<sub>2</sub>, CSN(alkyl)<sub>2</sub> or NO<sub>2</sub>; or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

18(Original). The method according to claim 17, wherein R<sup>5</sup> is the five membered ring (ii) and U is O or S.

19(Withdrawn). A composition for conditioning the skin of a mammal in need thereof comprising:

- (i) a skin conditioning component; and
- (ii) a compound of formula I, or a tautomer thereof:

$$R^{5}$$
 $R^{4}$ 
 $R^{3}$ 
 $R^{3}$ 

wherein:

R<sup>1</sup> and R<sup>2</sup> are selected from the group consisting of H, alkyl, substituted alkyl, OH, O(alkyl), O(substituted alkyl), O(Acetyl), aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, alkylaryl, substituted alkylaryl, alkylheteroaryl, substituted alkylheteroaryl, 1-propynyl, substituted 1-propynyl, 3-propynyl, and substituted 3-propynyl;

or R<sup>1</sup> and R<sup>2</sup> are joined to form a ring selected from the group consisting of -CH<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>m</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>p</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>N(H)CH<sub>2</sub>CH<sub>2</sub>-, and -CH<sub>2</sub>CH<sub>2</sub>N(alkyl)CH<sub>2</sub>CH<sub>2</sub>-; m is an integer from 1 to 4; n is an integer from 1 to 5; p is an integer from 1 to 4; or R<sup>1</sup> and R<sup>2</sup> form a double bond to C(CH<sub>3</sub>)<sub>2</sub>, C(cycloalkyl), O, or C(cycloether);

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R<sup>3</sup> is selected from the group consisting of H, OH, NH<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>3</sub> to C<sub>6</sub> alkenyl, substituted C<sub>3</sub> to C<sub>6</sub> alkenyl, alkynyl, substituted alkynyl, and CORA;

 $R^{\Lambda}$  is selected from the group consisting of H, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, C1 to C3 alkoxy, substituted C1 to C3 alkoxy, C1 to C3 aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

R<sup>4</sup> is selected from the group consisting of H, halogen, CN, NH<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C1 to C6 alkyl, C1 to C6 alkoxy, substituted C1 to C6 alkoxy, C1 to C6 aminoalkyl, and substituted C<sub>1</sub> to C<sub>6</sub> aminoalkyl;

R<sup>5</sup> is selected from the group consisting of a), b) and c):

a substituted benzene ring having the structure: a)

X is selected from the group consisting of halogen, OH, CN, C1 to C3 alkyl, substituted C1 to C3 alkyl, C1 to C3 alkoxy, substituted C1 to C3 alkoxy, C1 to C3 thioalkyl, substituted C1 to C3 thioalkyl, S(O)alkyl, S(O)2alkyl, C1 to C3 aminoalkyl, substituted C1 to C3 aminoalkyl, NO2, C1 to C3 perfluoroalkyl, substituted C1 to C3 perfluoroalkyl, 5 or 6 membered heterocyclic ring comprising 1 to 3 heteroatoms, CONH2, CSNH2, CNHNHOH, CNH2NOH, CNHNOH, CORB, CSRB, OCORB, and NRCCORB:

R<sup>B</sup> is selected from the group consisting of H, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C1 to C3 alkyl, aryl, substituted aryl, C1 to C3 alkoxy, substituted C1 to C3 alkoxy, C1 to C3 aminoalkyl, and substituted C1 to C3 aminoalkyl;

R<sup>C</sup> is H, C<sub>1</sub> to C<sub>3</sub> alkyl, or substituted C<sub>1</sub> to C<sub>3</sub> alkyl;

Y and Z are independently selected from the group consisting of H, halogen, CN, NO2, C1 to C3 alkoxy, substituted C1 to C3 alkoxy, C1 to C4 alkyl, substituted C1 to C4 alkyl, C1 to C3 thioalkyl, and substituted C1 to C3 thioalkyl;

b) a five or six membered heterocyclic ring comprising 1, 2, or 3 heteroatoms selected from the group consisting of O, S, SO, SO<sub>2</sub> and NR<sup>6</sup> and having one or two independent substituents from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>4</sub> alkyl, substituted C<sub>1</sub> to C<sub>4</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, COR<sup>D</sup>, CSR<sup>D</sup>, and NR<sup>E</sup>COR<sup>D</sup>;

 $R^D$  is H, NH<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, aryl, substituted aryl, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, or substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl;

R<sup>E</sup> is H, C<sub>1</sub> to C<sub>3</sub> alkyl, or substituted C<sub>1</sub> to C<sub>3</sub> alkyl;

R<sup>6</sup> is H, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, or C<sub>1</sub> to C<sub>4</sub>CO<sub>2</sub>alkyl, or

c) an indol-4-yl, indol-7-yl or benzo-2-thiophene moiety, wherein said moiety is optionally substituted by from 1 to 3 substituents selected from the group consisting of halogen, alkyl, substituted alkyl, CN, NO<sub>2</sub>, alkoxy, substituted alkoxy, and CF<sub>3</sub>;

Q<sup>1</sup> is S, NR<sup>7</sup>, or CR<sup>8</sup>R<sup>9</sup>;

R<sup>7</sup> is selected from the group consisting of CN, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>3</sub> to C<sub>8</sub> cycloalkyl, substituted C<sub>3</sub> to C<sub>8</sub> cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, SO<sub>2</sub>CF<sub>3</sub>, OR<sup>11</sup> and NR<sup>11</sup>R<sup>12</sup>;

 $R^8$  and  $R^9$  are independent substituents selected from the group consisting of H,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring,  $NO_2$ , CN, and  $CO_2R^{10}$ :

R<sup>10</sup> is C<sub>1</sub> to C<sub>3</sub> alkyl or substituted C<sub>1</sub> to C<sub>3</sub> alkyl; or CR<sup>8</sup>R<sup>9</sup> comprise a six membered ring having the structure:

R<sup>11</sup> and R<sup>12</sup> are independently selected from the group consisting of H, alkyl, substituted alkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, sulfonyl, and substituted sulfonyl; or a pharmaceutically acceptable salt, tautomer, metabolite, or product thereof.

20(Currently Amended). The composition method according to claim 19 22, wherein:

 $R^1$  and  $R^2$  are alkyl or substituted alkyl;  $R^3$  is H.

21(Currently Amended). The composition method according to claim 19 22, wherein:

R<sup>1</sup> and R<sup>2</sup> are joined to form a ring selected from the group consisting of -CH<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>m</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>p</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>N(H)CH<sub>2</sub>CH<sub>2</sub>-, and -CH<sub>2</sub>CH<sub>2</sub>N(alkyl)CH<sub>2</sub>CH<sub>2</sub>-; R<sup>3</sup> is H

22(Currently Amended). The composition method according to claim 19 22, wherein:

 $R^3$  is H;

Q<sup>1</sup> is S or NR<sup>7</sup>.

23(Currently Amended). A method of conditioning the skin comprising the step of delivering to a mammal in need thereof a composition according to claim comprising:

- (i) a skin conditioning component; and
- (ii) a compound of formula I, or a tautomer thereof:

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$$\mathbb{R}^5$$
 $\mathbb{R}^4$ 
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 

## wherein:

R<sup>1</sup> and R<sup>2</sup> are selected from the group consisting of H, alkyl, substituted alkyl, OH, O(alkyl), O(substituted alkyl), O(Acetyl), aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, alkylaryl, substituted alkylaryl, alkylheteroaryl, substituted alkylheteroaryl, 1-propynyl, substituted 1-propynyl, 3-propynyl, and substituted 3-propynyl;

or R<sup>1</sup> and R<sup>2</sup> are joined to form a ring selected from the group consisting of -CH<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>-, -O(CH<sub>2</sub>)<sub>n</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>N(H)CH<sub>2</sub>CH<sub>2</sub>-, and -CH<sub>2</sub>CH<sub>2</sub>N(alkyl)CH<sub>2</sub>CH<sub>2</sub>-;

m is an integer from 1 to 4;

n is an integer from 1 to 5;

p is an integer from 1 to 4;

or R1 and R2 form a double bond to C(CH3)2, C(cycloalkyl), O, or C(cycloether);

R3 is selected from the group consisting of H, OH, NH2, C1 to C6 alkyl,

substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>3</sub> to C<sub>6</sub> alkenyl, substituted C<sub>3</sub> to C<sub>6</sub> alkenyl, alkynyl, substituted alkynyl, and COR<sup>A</sup>;

 $R^A$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

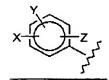
R<sup>4</sup> is selected from the group consisting of H, halogen, CN, NH<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, substituted C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl, and substituted C<sub>1</sub> to C<sub>6</sub> aminoalkyl;

R<sup>5</sup> is selected from the group consisting of a), b) and c):

a) a substituted benzene ring having the structure:

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X is selected from the group consisting of halogen, OH, CN, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> thioalkyl, substituted C<sub>1</sub> to C<sub>3</sub> thioalkyl, S(O)alkyl, S(O)alkyl, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, substituted C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, substituted C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 or 6 membered heterocyclic ring comprising 1 to 3 heteroatoms, CONH<sub>2</sub>, CSNH<sub>2</sub> CNHNHOH, CNH<sub>2</sub>NOH, CNHNOH, COR<sup>B</sup>, CSR<sup>B</sup>, OCOR<sup>B</sup>, and NR<sup>C</sup>COR<sup>B</sup>;

 $R^B$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

RC is H, C1 to C3 alkyl, or substituted C1 to C3 alkyl;

Y and Z are independently selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>4</sub> alkyl, substituted C<sub>1</sub> to C<sub>4</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> thioalkyl, and substituted C<sub>1</sub> to C<sub>3</sub> thioalkyl;

b) a five or six membered heterocyclic ring comprising 1, 2, or 3 heteroatoms selected from the group consisting of O, S, SO, SO<sub>2</sub> and NR<sup>6</sup> and having one or two independent substituents from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>4</sub> alkyl, substituted C<sub>1</sub> to C<sub>4</sub> alkyl, C<sub>3</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, COR<sup>D</sup>, CSR<sup>D</sup>, and NR<sup>E</sup>COR<sup>D</sup>;

 $R^D$  is H, NH<sub>2</sub>,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^E$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;

R<sup>6</sup> is H, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, or C<sub>1</sub> to C<sub>4</sub>CO<sub>2</sub>alkyl; or

c) an indol-4-yl, indol-7-yl or benzo-2-thiophene moiety, wherein said moiety is optionally substituted by from 1 to 3 substituents selected from the group

consisting of halogen, alkyl, substituted alkyl, CN, NO<sub>2</sub>, alkoxy, substituted alkoxy, and CF<sub>3</sub>;

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O1 is S, NR7, or CR8R9;

R<sup>7</sup> is selected from the group consisting of CN, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>3</sub> to C<sub>8</sub> cycloalkyl, substituted C<sub>3</sub> to C<sub>8</sub> cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, SO<sub>2</sub>CF<sub>3</sub>, OR<sup>11</sup> and NR<sup>11</sup>R<sup>12</sup>;

 $R^8$  and  $R^9$  are independent substituents selected from the group consisting of H,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring,  $NO_2$ , CN, and  $CO_2R^{10}$ .

R<sup>10</sup> is C<sub>1</sub> to C<sub>3</sub> alkyl or substituted C<sub>1</sub> to C<sub>3</sub> alkyl: or CR<sup>8</sup>R<sup>9</sup> comprise a six membered ring having the structure:

R<sup>11</sup> and R<sup>12</sup> are independently selected from the group consisting of H, alkyl, substituted alkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, sulfonyl, and substituted sulfonyl; or a pharmaceutically acceptable salt, tautomer, metabolite, or product thereof.

24(Currently Amended). The method according to elaims claim 23 wherein said compound of formula I is selected from the group consisting of 5'-(3-Chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-thione, 3-(1',2'-Dihydro-2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)benzonitrile, 4-1',2'-Dihydro-2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-2-thiophenecarbonitrile, 3-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-5-fluorobenzonitrile, 4-Methyl-5-(1,2-dihydro-2-thioxospiro[cyclohexane-1,3-[3H]-indol]-5-yl)-2-thiophenethioamide, 5-(1,2-dihydro-2-thioxospiro[cyclohexane-1,3-[3H]-indol]-5-yl)-2-thiophenethioamide, 5-(1,2-dihydro-2-thioxospiro[cyclohexane-1,3-[3H]-indol]-5-yl)-3-yl)-3-yl

Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5'-yl)-1H-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-1-(tert-butoxycarbonyl)pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-1-H-pyrrole-2-carbonitrile, 5-(2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-vl)-1-methylpytrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-3thiophenecarbonitrile, 5-(1,2-Dihydro-thioxospiro[cyclopentane-1,3-[3H]indol]-5-y])-2thiophenecarbonitrile, 5-(3-Fluoro-4-methoxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(2-Amino-5-pyrimidinyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)thione, 3-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-5fluorobenzonitrile, 5-(3-chlorophenyl)-3,3-dimethyl-1,3-dihydro-2H-indole-2-thione, 3-Benzyl-5-(3-chlorophenyl)-3-methyl-1,3-dihydro-2H-indole-2-thione, 4-(3,3-dimethyl-2thioxo-2,3-dihydro-1H-indol-5-yl)-2-furonitrile, 5-(3-methoxyphenyl)-3,3-dimethyl-1,3dihydro-2H-indole-2-thione, 3-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-fluorobenzonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5yl)-3-pyridinecarbonitrile, 5-(3,4-Difluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(5-Chloro-2-thienyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-3-furancarbonitrile, 5-(3-Chloro-4-fluorophenyl)spiro[cyclohexanc-1,3-[3H]indol]-2(1H)-thione, 5-(3-Chloro-5fluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3,5-Difluorophenyl)spiro[cyclohexanc-1,3-[3H]indol]-2(1H)-thione, 5-(1,2-Dihydro-2thioxospiro[cyclohexanc-1,3-[3H]indol]-5-yl)-4-propyl-2-thiophenecarbonitrile, 5-(3-Fluoro-4-nitrophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 4-(1,2-Dihydro-2thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-furancarbonitrile, 5"-(3-Chlorophenyl)spiro[cyclobutane-1,3"-[3H]indol]-2"(1"H)-thione, 5"-(2-Chlorophenyl)spiro[cyclohexane-1,3"-[3H]indol]-2"(1"H)-thione, 5"-(4-Chlorophenyl)spiro[cyclohexane-1,3"-[3H]indol]-2"(1"H)-thione, 5-(1",2"-Dihydro-2"-thioxospiro[cyclohexane-1,3"-[3H]indol]-5"-yl)-4-methyl-2thiophenecarbonitrile, 5-(1",2"-Dihydro-2"-thioxospiro[cyclohexane-1,3"-[3H]indol]-5"yl)-2-thiophenecarbonitrile, 5"-(3-Fluorophenyl)spiro[cyclohexane-1,3"-[3H]indol]-

2"(1"H)-thione, 5-(3-Hydroxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-chlorophenyl)-3,3-diethyl-1,3-dihydro-2H-indole-2-thione, 5-(4-Fluoro-3-(trifluoromethyl)phenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 4-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-fluorobenzonittile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-n-butyl-2thiophenecarbonitrile, 5-(3-Fluoro-5-methoxyphenyl)spiro[cyclohexane-1,3-[3H]indo]]-2(1H)-thione, 5-(3-Chlorophenyl)-N-hydroxyspiro[cyclohexane-1,3'-[3H]indol]-2-amine, N-(Acetyloxy)-5'-(3-chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2"amine, 5'-(3-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(2-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(4-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3,4-difluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-methoxyphenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-nitrophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-cyanophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 3-(1',2'-Dihydro-2'-(hydroxyimino)spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-5fluorobenzonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-4methyl-2-thiophenecarbonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarbonitrile, 4-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarbonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-1H-pyrrole-1-methyl-2-carbonitrile. 5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-1H-pyrrole-2-carbonitrile, 4-(Spiro[cyclohexane-1,3'-[3H]indol]-2'(acetoxyimino)-5'-yl)-2-thiophenecarbonitrile, 3-Fluoro-N'-hydroxy-5-(2'-(hydroxyamino)spiro[cyclohexane-1,3'-[3H]indol]-5'yl)benzenecarboximidamide, N'-Hydroxy-5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-4-methyl-2-thiophenecarboximidamide, N'-Hydroxy-4-(spiro[cyclohexane-1,3'-[3H]indol]-2'-hydroxyimino)-5'-yl-2thiophenecarboximidamide, N'-Hydroxy-5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarboxidamide,

5'-(3-Chlorophenyl)spiro[cyclobexane-1,3'-[3H]indol]-2'-ylidenecyanamide,
5'-(3-Cyano-5-fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'(5-Cyano-1H-pyrrol-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2-ylidenecyanamide, 5'-(5Cyano-thiophen-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5Cyano-3-methyl-thiophen-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide,
5'-(5-Cyano-thiophen-3-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 3(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-5-fluoro-benzonitrile, 5(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1H-pyrrole-2-carbonitrile,
5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1-methyl-1H-pyrrole-2-carbonitrile,
5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-thiophene-2-carbonitrile,
and 4-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-4methyl-thiophene-2-carbonitrile, and 4-(2'-Cyanomethylene-spiro[cyclohexane-1,3'[3H]indol]-5'-yl)-thiophene-2-carbonitrile, or a pharmaceutically acceptable salt,
tautomer, metabolite, or prodrug thereof.

25(Original). The method according to claim 23, wherein said compound is 5'-(5-Cyano-1-methyl-1H-pyrrol-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.